

EC DYNAMOMETER POWER UNIT AND DRIVER**Controlled current supply****Power factor correction****Digital regulation****Profibus-DP communication**

The power unit PWR 1000 is suited to drive any Eddy current dynamometer, up to 5 A

- ✓ **IGBT technology**
- ✓ **Compact wall mount unit**
- ✓ **Power supply from 115 to 230 V a.c**
- ✓ **400 V d.c voltage bus**
- ✓ **Coil load up to 40 Ω**
- ✓ **Electronic protection against short circuits**
- ✓ **General alarm provided by relay**
- ✓ **6 dynamometer safeties inputs**
- ✓ **4 multiplexed alarm outputs**
- ✓ **1 combined alarm output**
- ✓ **16 bits acquisition for speed and torque with the Profibus option**



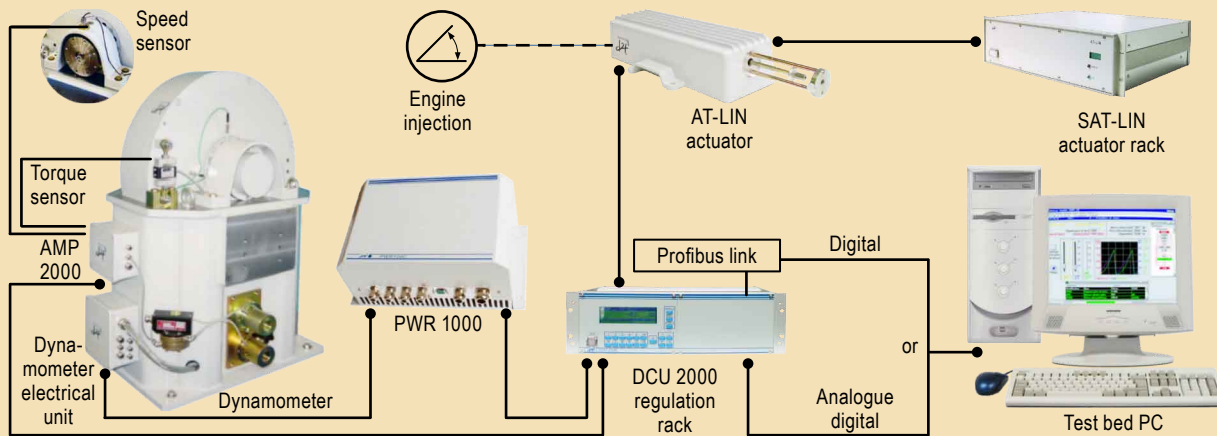
GENERAL PRESENTATION

The PWR 1000 is the power part of an Eddy current dynamometer. It manages the coil current (5 A max.), as well as the safety feedback to the test bed control unit.

It is a part of the system combining power unit, measurement and control.

This system can include :

- an Eddy current dynamometer,
- the load cell conditioning module (AMP 2000),
- the digital control unit for speed and torque regulation (DCU 2000).



TECHNICAL SPECIFICATIONS

Mechanical and electrical features

Dimensions (L x W x D)	344 x 225 x 115 mm
Weight	6.2 kg
Power supply	115-230 V a.c.
Current consumption	8 A max
Operating temperature	from 0° to 40 °C

CE compliant

EN 50081-2
EN 50082-2
EN 61010-1

Current set-point input

Type	0-10 V
Impedance	100 kΩ
Bandwidth	7kHz (at -3 dB)
Over-voltage protection	ESD, threshold 40 V d.c.

2 isolated digital signal inputs

Excitation	HL 5-24 V
Reset	

6 safety digital input

Type	Dry contact (< 10 Ω) or active low level (< 0.5 V)
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5 digital alarm outputs

1 combined alarm	Reversing contact (1 A/30 V d.c)
4 multiplexed outputs	Contact relay (0.4 A/60 V d.c.)

Current output in coil

Type	controlled 5 A max
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As an option, the Profibus module is an interfaces between the test bed Profibus-DP link and the PC board. In this case, the automation system manages the torque and/or speed regulation.

Network Communication

Profibus-DP	up to 12 Mbps max.
Speed	1 input by a variable reluctance sensor
Torque	1 differential voltage input

The following data are exchanged:

- PWR 1000 control,
- Current set-points,
- PWR 1000 states,
- Internal and external errors,
- Torque, speed and current measurements.

All D2T products benefit by a one-year parts and workmanship warranty back to factory. Technical specifications may be modified without notice.